AMENDMENT TO THE CLAIMS

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (currently amended): A method comprising steps of:

forming compensation equations for a plurality of servo tracks of a plurality of discs, each compensation equation including discrete compensation values representing repeatable runout (RRO) for one of the servo tracks of one of the discs; ~~and~~

using the compensation equations to control heads corresponding to the discs to follow virtual tracks that are substantially concentric to an axis of rotation of the corresponding disc~~.~~;

measuring a reference position of each head while maintaining the heads in fixed relation to each other;

establishing a reference virtual track at each of the reference positions; and

identifying each of the virtual tracks of each disc based upon their position relative to the reference position, whereby the disc drive is operable in a cylinder mode.

7. (previously presented): The method of claim 6, wherein the forming step comprises:

positioning a head at a fixed radial position relative to the axis of rotation of the corresponding disc;

measuring a position error signal (PES) corresponding to a difference between a head position signal and a reference signal;

setting the compensation values in accordance with the PES;

forming the compensation equation for the disc using the compensation values; and

repeating steps (a)(1) through (a)(4) for each disc.

8. (currently amended): The method of claim 7, wherein the compensation values relate to discrete radial position differences between the position of the head and ~~the~~ a reference track as measured at each servo track.

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (currently amended): A device comprising:

a plurality of discs each having servo tracks that define data tracks that are eccentric to an axis of rotation;

a plurality of transducers each configured to produce an output signal in response to the servo tracks of a corresponding disc;

a plurality of reference positions for each transducer, each reference position identifying a location relative to the corresponding disc that is obtained while the transducers are maintained in fixed relation to each other;

a plurality of compensation equations for the servo tracks of the discs, each compensation equation including discrete compensation values representing repeatable runout (RRO) of one of the servo tracks of one of the discs caused by eccentricity between the servo track and an axis of rotation of the disc; and

a servo control loop configured to control a position of each transducer to follow virtual tracks that are substantially concentric to the axis of rotation of the corresponding disc using the corresponding compensation equation, the virtual tracks of each disc are identified relative to the reference position of the corresponding transducer to thereby allow the device to operate in a cylinder mode.

20. (previously presented): The device of claim 19, wherein the device forms a disc drive.

21. (previously presented): The device of claim 19, wherein the device forms a spin stand.

22. (canceled)

23. (canceled)

24. (canceled)

25. (previously presented): A method of operating a disc drive comprising:

establishing virtual tracks for a plurality of discs that are eccentric to servo tracks written to the discs;

establishing a reference position for a plurality of heads, each of which correspond to one disc surface while maintaining the heads in fixed relation to each other; and

identifying each of the virtual tracks of each disc based upon their position relative to the reference position, whereby the disc drive is operable in a cylinder mode.

26. (previously presented): The method of claim 25, wherein the establishing virtual tracks includes:

forming compensation equations representing repeatable runout (RRO) for the plurality of discs, wherein each compensation equation includes discrete compensation values which represent the RRO at a plurality of the servo tracks of each disc; and

using the compensation equations to establish virtual tracks that are substantially concentric to an axis of rotation of the corresponding disc.